

Flight

First Aero Weekly in the World.

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport.

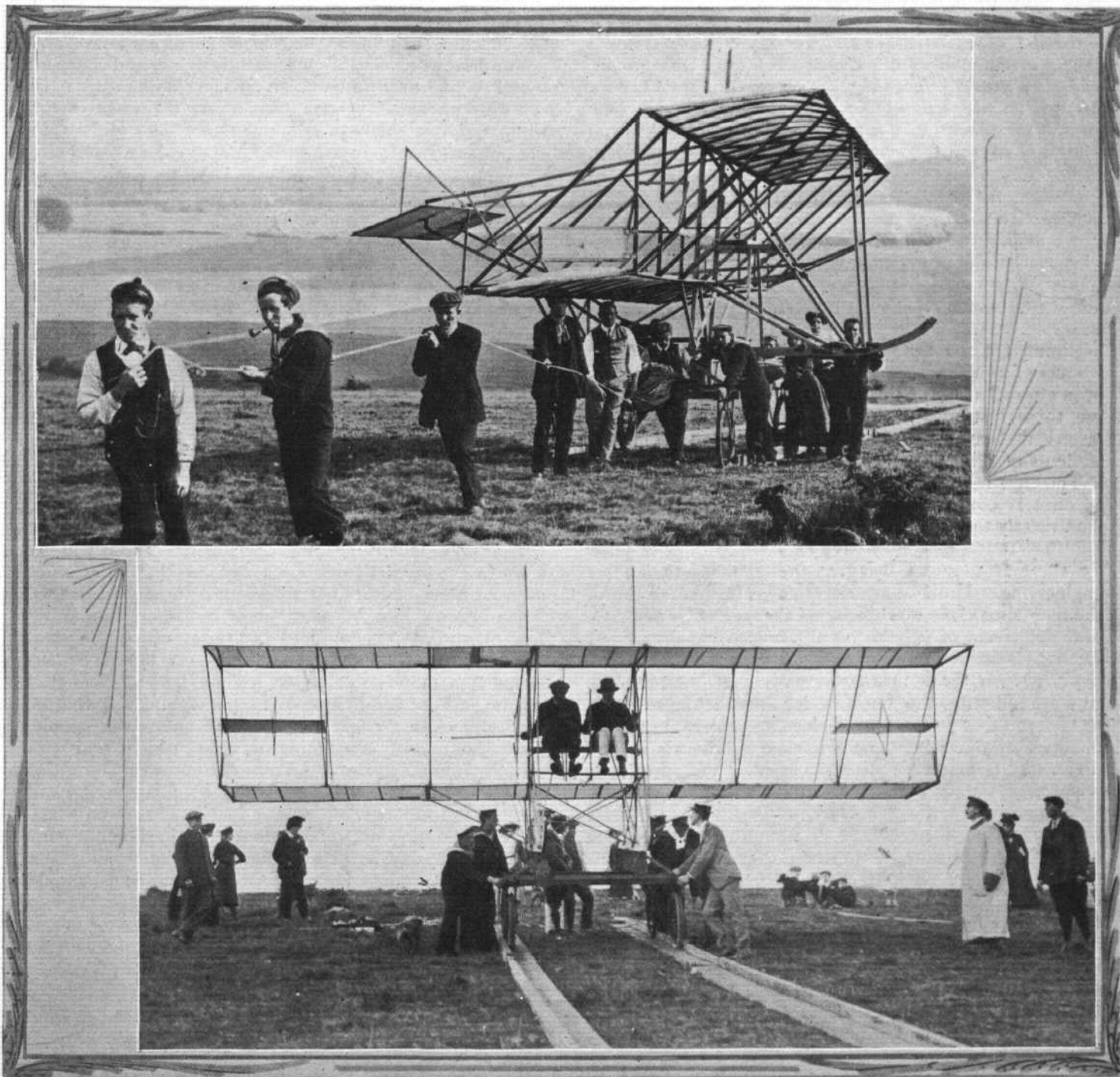
OFFICIAL ORGAN OF THE AERO CLUB OF THE UNITED KINGDOM.

No. 39. Vol. I.]

SEPTEMBER 25TH, 1909.

[Registered at the G.P.O.]
as a Newspaper.

[Weekly, Price 1d.
Post Free, 1½d.]



A BRITISH-BUILT AND DESIGNED GLIDER.—The machine which has been invented by Lieuts. Porte and Pirie, two young naval officers attached to the submarine depôt at Haslar. In the top picture bluejackets and villagers are hauling up the glider to the summit of Portsdown Hill, overlooking Portsmouth, preparatory to the gliding experiments; and in the lower photo Lieuts. Porte and Pirie are in their glider at the top of the hill ready for being launched for a flight. Although the experiments resulted in a smash, defects are to be remedied, and successful progress may be safely looked for with such a businesslike machine.

PRACTICAL WAYS OF MAKING A START.

It is a happy chance that brings it about that practically all the news we have to chronicle this week gives to the world for the first time valuable and first hand information as to the ways and means of making a practical start in riding the air on machines heavier than that element. Not the least important feature of this news, too, is the revelation it contains of the fact that to ride the wind is not a costly thing. This number of FLIGHT deals with the practical aspects of gliding, and the record will be very complete by reason of the latest achievements in Britain to-day being supplemented, commencing with next week, by a reprint of Messrs. Wilbur and Orville Wright's account of their gliding experiments which were first given to the world in this country through the instrumentality of the parent of this organ, *The Automotor Journal*. Such a number cannot fail to be as well of permanent as of practical interest for all who take a real interest in flight, for from a perusal of the following pages even those who can afford full-scale motor driven machines will be able to appreciate the very great and practical value of gliding as a preliminary to getting a notion of riding the wind with a power-driven machine. There are many reasons why this is the wiser method. The glider is lighter, gentler, less speedy, and we must remember that at this stage the risks that such brave pioneers as Lilienthal and Pilcher ran are not likely to be met with by the beginner, for the simple reason that the fruits of the labours of all the pioneers are available so that they have been embodied in the designs of the machines which we use, these instruments being controllable in ways and means that are common knowledge to all latter-day students of flying.

The Ogilvie-Searight method of procedure, of which our account is concluded, should be pondered in more ways than merely to glance at the manner in which designs of known practical efficiency have been reproduced in little, for there is more in flying at the moment than mere engineering. Until we are many stages further advanced, the man aboard the machine must always be fifty per cent. of the efficiency of that machine. And we may draw many interesting deductions from what is recorded in the following pages. In the first place, these young British pioneers, who are following the business for sport at the moment, testify to the feeling of being absolutely lost that comes over one when first launched in the air in free flight. It is a feeling so overmastering that even men possessing the natural quickness, pluck and practical turn of mind that characterises your typical British sportsman, find themselves forgetting to do this or that or the other thing, and even when they attempt to do it they are apt to catch hold of the wrong part altogether. Or after a flight they forget entirely what they did with their rudder in a given circumstance, and so forth. You can see such men at starting hold the elevating control lever in the left hand, reaching down forwards to release the catch for the dropping weight, and immediately the machine leaps forward, either they will forget about the rudder and wing-warping lever for the right hand, which they will instinctively rest calmly on the knee of the right leg, or, remembering that they should be grasping such a lever, by mistake they will seize hold of one of the struts of their glider and wrench merrily at that throughout the aerial journey. And surely it is not the least encouraging sign of the comparative safety of this sport that it enables one to make this sort of mistake, while

still learning to fly, without coming to grief. Another aspect in part bound up with this, is the fact that one is so overwhelmed with surprise at finding oneself actually doing as the birds do that at first one does not have any desire to do anything definite, but is over apt to act the spectator, for there is mingled with one's first sensations a feeling that the machine has taken command of one, and knows a great deal more what ought to be done than the man aboard it. Of course, such an impression is wrong, but it is human; and, surely, if one is learning that way, it is safer than with a full-size machine capable of carrying the weight of the motor and the additional complications of power applied to it. By beginning with the man-carrying glider, the machine can be an extremely small edition of any power-driven one, and is consequently lighter and cheaper; therefore one may find out an amazing amount from so sensitive an aerial vehicle concerning the ways of the wind, and how safely to employ them. The glider is to the power-driven aeroplane what the bone-shaker was, in the very early days, to the bicycle. All the sensations of the more perfect vessel are slightly exaggerated. It may be asked: Why exaggerated? The answer is, because the craft is relatively so small, and glides nearer the ground than the power-driven one, so that it is subject to every local current, some of them, as when it passes over any "obstruction," like a bank, being of that directly vertical sort that time and again have provided such trying experiences for many men on power-driven aeroplanes when first they have met with such conditions. With a glider, may be learnt how to negotiate these drifts under relatively safer conditions, because at slower speeds and nearer the ground.

Another very practical form of commencing is that of Mr. Parkes, whose experiments we have also been following with interest, and are now in a position to relate. Briefly, he began by building a biplane on an ordinary pedal bicycle, by taking the chain off the back wheel and coupling it up to a propeller with such success that at 9 miles an hour he sometimes left the ground for a yard or two. Then he went into the question of propellers by putting his air-cooled engine into a boat, which he had driven along with three passengers on board by air-propulsion in place of water. Then he took this little engine and put it into a second biplane, and had what he modestly calls 40 feet jumps, which shows the simple, inexpensive and fascinating way in which you can develop into a flyer, for Mr. Parkes' experiments have not stopped short, but are being carried to a larger and still more practical stage.

These two accounts of learning to fly in different parts of Britain to-day, as also a communication from Major G. H. Fink concerning scientific kite-flying, should prove invaluable aids to all those who are taking up aeronautics from the strictly practical point of view. There is much work going on in this country of which we are fully cognisant, and we shall hope at no distant date to be able to give still further accounts of a like helpful nature to our readers, for the experiences of no one pioneer can be all-sufficing; each can learn so much, and, particularly, gain so much encouragement from reading accounts of what others have done and are doing. Meantime, thanks to the generosity of the gentlemen named, we are enabled in this number to present the first practical lessons in gliding as a step towards aeroplaning, not as it may be done merely, but as it has been and is being done in this country to-day.

THE WRIGHT GLIDER AS MADE BY CLARKE.

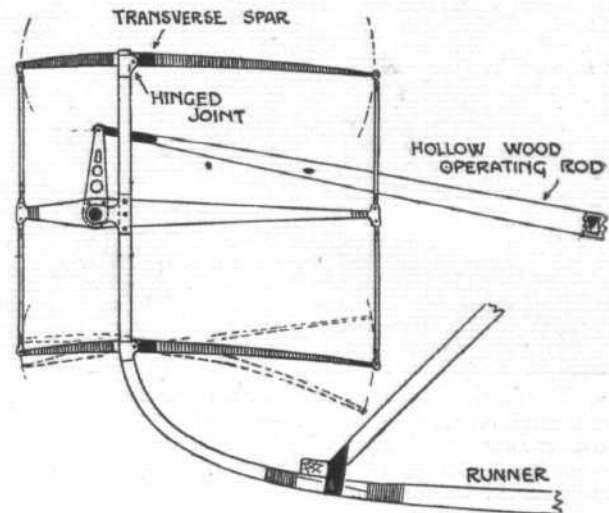
(Concluded from page 571.)

Elevator and Tail.

THE elevator is, as has already been mentioned, constructed according to the latest Wright patent, that is to say, the two planes are so mounted that they flex or warp, instead of merely pivot when a change is made in their angle of incidence by the operation of the elevating lever. In order to accomplish this warping the two decks of the elevator are mounted in rather a peculiar way, the framework of each being built up upon a single transverse-spar situated about 9 ins. from the leading edge; the full cord of the elevator is 2 ft. 6 ins. There is thus a flexible leading edge as well as a flexible trailing edge, the relative flexibilities being more or less in proportion to the

directions, hence the adoption of the device for mechanically warping the decks in the manner described. For the purpose of rocking the tubular spar to which reference has already been made, a simple lever and connecting-rod are employed, the connecting-rod in this particular case being built up so as to have a hollow rectangular section in order to give greater stiffness.

Between the elevator decks is a semi-circular vertical plane forming a prow.



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The Wrights' patent flexing elevator is so arranged that a movement of the operating-rod, besides altering the angle made by the planes with the horizontal, varies their camber or curvature.

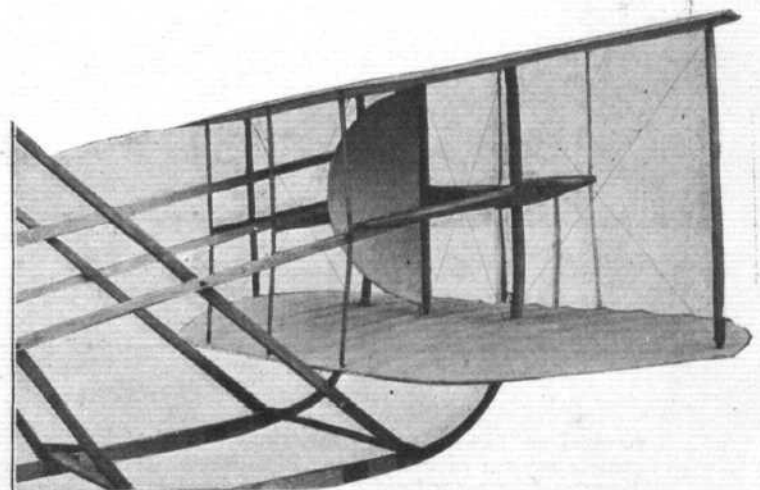
The outrigger construction and relative position of the elevator are clearly indicated above.

overhang of the main spar. The main spar itself is pivoted to the uprights which support it in order to avoid twisting strains when the decks are flexed; it is evident that although the action of the elevator mainly consists of a warping action of the decks, a certain amount of pivoting must necessarily occur simultaneously.

The operating mechanism for flexing the elevator decks consists of three stiff ribs, which lie fore and aft, midway between the two decks of the elevator. These members are fixed to a transverse tubular spar, which is pivoted to a bracket projecting from the same upright as supports the spars of the elevator decks; it is, however, situated some few inches forward of their axes. From the extremities of each operating rib two struts pass to the leading and trailing edges of the upper and lower decks respectively, and it is by means of these struts that the elevating decks are warped. The operation of manipulating the elevator is performed by rocking the tubular transverse spar upon which the operating ribs are mounted, and the fact that this spar is pivoted about a different centre to that on which the elevator decks are supported, causes a difference in the relative amount of travel imparted to the leading and trailing edges.

The result of this is that instead of the elevator decks remaining flat as they tilt or dip, their surfaces become cambered, and according as the front edge is dipped or tilted so is the camber convex or concave to the ground. The object of this system is to increase the efficiency of the elevator by converting the decks, which are normally aeroplanes, into cambered aerofoils directly they are required for use. As the elevator has to work both ways, it is necessary to make provision for cambering in both

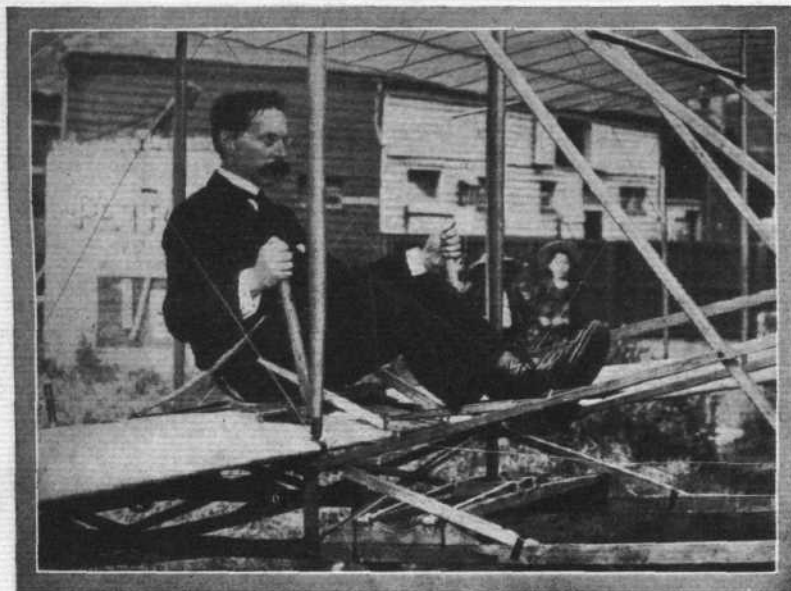
The tail, which is controlled by another lever, consists of a simple plane mounted vertically between two outrigger spars. These spars are hinged to the rear transverse spars of the main decks so that they shall not be readily broken if the tail strikes the ground. In order that this hinging may be effective, that diagonal tie-wire which would ordinarily be stretched as the result of any such deformation, is fitted with a length of strong elastic. The elastic is sufficiently strong to keep the outrigger in its proper position under normal conditions.



Detailed view of the elevator, showing its attachment to vertical continuations of the runners, and the stationary cutwater or prow of semi-circular form situated between the two planes.

The Chassis and Pilot's Seat.

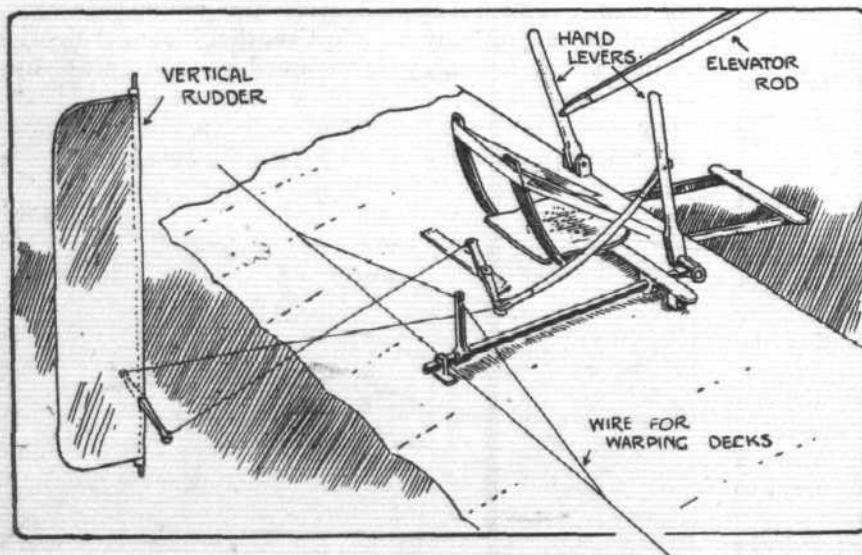
The machine as a whole is mounted upon two runners which commence a short distance behind the main decks and extend forward with a gradual curve which is ulti-



Mr. T. W. K. Clarke, at whose aero works the glider has been constructed, occupying the aviator's seat. This photograph also shows the two small grooved wheels mounted between the runners, one under the main deck, and the other a little in front, which support the machine on the launching rail preparatory to flight.

mately increased in a sharp bend where they join on the upright supports for the elevator. The runners are stayed to the front spar of the upper main deck by a set of oblique struts. The lower deck is supported a little above the rudders by a lattice work bracing.

The pilot is accommodated in an extremely light but fairly comfortable chair—in which respect the machine differs from the original Wright gliders, where the operator took the air lying prone on the lower deck.



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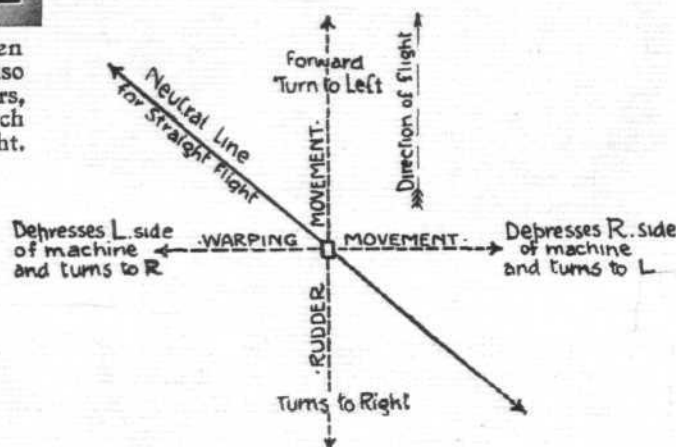
Central portion of lower deck, showing aviator's seat and the lever-control system of the glider. It will be observed that the right-hand lever can be moved sideways as well as forwards and backwards.

The Wright Control.

On each side of the pilot is a vertical lever. That on the left moves to and fro only, and works the elevator in

the manner already described. That on the right can move either to and fro or sideways, that is to say, in reality it has a kind of universal motion. The two and fro movement works the rudder, and the sideways motion warps the main decks. This warping of the main decks is carried out by means of wires, which pass through short lengths of Bowden tube, this method of guiding them being considered by Mr. Clarke to be far superior to the use of pulleys. It may here be mentioned, while on the subject of wire bracing, that the main wire diagonals are not fitted with any tightening device, being merely drawn hand-tight, and fastened by simple brass bands, the ends of the wire being turned back over the bands to prevent them from slipping.

The lateral control of a Wright glider, or flying machine, by a single lever which warps the wings and moves the rudder, is the most interesting and characteristic feature of the Wright system, but its action is apt to be a little difficult to grasp unless each movement is taken in sequence. The lever on the machine built by Messrs. Clarke is situated on the pilot's right; it normally stands in a vertical position when the machine moves straight ahead



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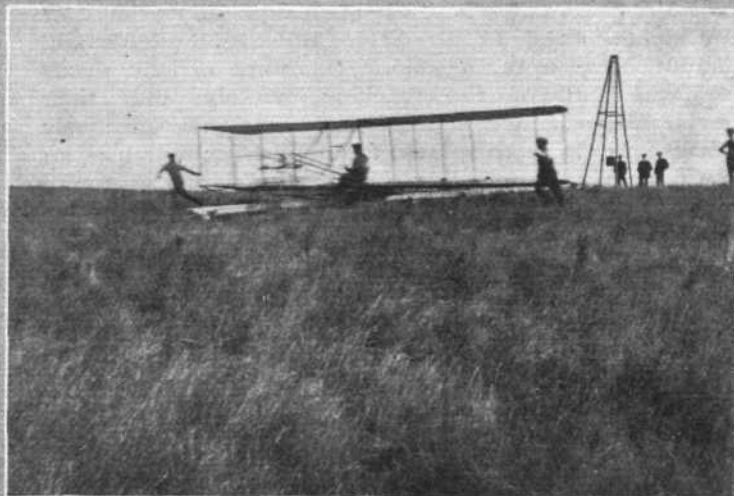
The above diagram, of which the small rectangle at the centre represents the right-hand control-lever, shows in plan how the two movements capable of being given to this lever result in a third oblique line of movement, along which the aviator's hand passes to and fro to preserve lateral equilibrium during flight.

on an even keel. The connections are such that—

- (1) If the lever is moved forward, the rudder puts the prow to the left.
- (2) If the lever is moved to the right, the left hand extremities of the main decks have their rear edges warped downwards so as to increase the angle of incidence.

The next point to take into consideration is the primary result which accompanies each of the above movements made independently.

- (1) From steering to the left, the increased relative velocity of the right wing tip will cant the machine so that the right wing rises.
- (2) The first effect of increasing the angle of incidence of the left-hand extremities of the main decks is to increase the resistance of flight on that side of



MR. OGILVIE AT WORK ON THE WRIGHT-CLARKE GLIDER.—On the left Mr. Ogilvie is just rising from the starting rail after the release of the derrick weight seen in the background; and on the right the glider is being, with the help of a Shetland pony, brought back up the practise hill after a glide of some three or four hundred yards.

the machine, which consequently tends to slow up, or in other words tends to put the prow of the machine to the left.

If, on the other hand, the course is kept straight by using the rudder, then the effect of increasing the angle on that side of the machine is to raise the left extremity of the main decks and so cant the machine over while it proceeds straight ahead. This manœuvre may either be performed for the purpose of restoring equilibrium from an accidentally canted position or to establish a cant artificially for the purpose of banking when taking a sharp turn.

It will be observed from the foregoing brief description that the to and fro and sideways movements of the lever have results which are closely related to one another and from which it is a simple matter to deduce that—

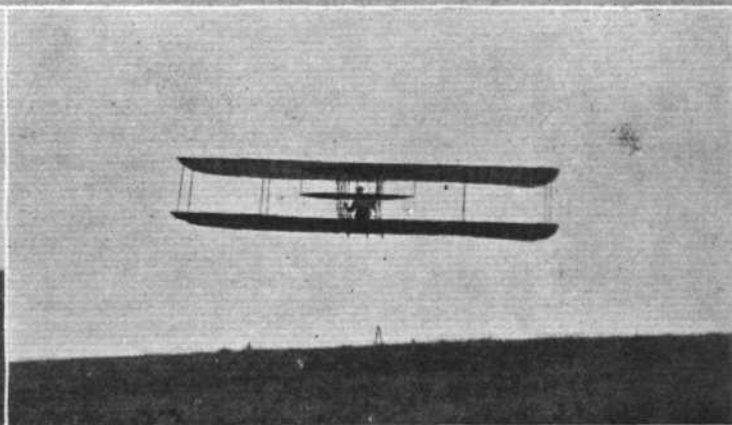
- (1) If it is desired to restore equilibrium from an accidental cant which has depressed the right hand extremity of the main decks, then the lever must be drawn towards the pilot—i.e., to the left—in order to increase the angle of incidence of the right hand extremities of the main decks which it is desired

to lift and *at the same time* the lever must be pushed forward so as to steer to the left in order that the initial effect of warping described above shall not turn the machine from its straight course.

The result of making, or rather trying to make, simultaneous movements of the lever along axes at right angles to each other is to follow a diagonal path; from this fact may be deduced the following very important fact:—

- (1) Equilibrium and a straight course with the Wright flyer are maintained by a diagonal movement of the lever, in which
 - (a) It is moved obliquely forward and towards the pilot, in order to rectify an accidental canting of the right-hand extremities of the main decks downwards, or
 - (b) The lever is moved obliquely backwards away from the pilot, in order to check a cant which has depressed the left wing.

This oblique neutral line, represented in one of our diagrams, is the normal path of travel for the pilot's right hand, while he keeps the machine on a straight course. Any movement of the hand away from this line must



MR. OGILVIE IN FULL FLIGHT ON HIS NEW GLIDER.—Note the starting derrick in the background, giving a good idea of the distance travelled. On the right the glider is just leaving a 1 in 7 gradient on the hill, and passing over the 1 in 5 gradient, which naturally results in a distinctly increased height above the ground being attained, since otherwise a rapid acceleration of speed would be inevitable.

result in a curved course, because the rudder or the warping effect preponderates.

The precise nature of the movement which the pilot would perform in order to steer, say, to the left depends on the manner in which he wishes to carry out the operation, which in turn is governed by the sharpness of the curve, his speed of flight and other considerations. In general, however, it may be said that the pilot's hand for such a manoeuvre moves through an oval path starting and finishing in the neutral vertical position; this oval path is the result of a perfectly performed sequence of very short straight movements each of which has resulting in a combination of warping and rudder action. Needless to say, such perfection is not immediately within reach of the novice, the movements of whose hand would be more than likely to show up the straight line components of the curve.

It should perhaps be mentioned here that the reason why the rudder and the warping of the planes has to take place simultaneously is primarily due to the fact that the Wrights warp the main decks of the machine instead of employing independent balancing planes. When the main decks of a glider or flyer are warped it is not easy, even if it is possible, to warp one extremity up and the other extremity down to an equal extent considered from the point of view of effectiveness. To all intents and purposes only that extremity which has its trailing edge warped downwards need be taken into consideration,

because while that undoubtedly does exert a powerful lift, the corresponding warping of the other extremity does not result in an equal amount of depressing action because the resultant curvature of the decks at that end of the machine is such that their angle of incidence is diminished but not effectively reversed. On the one side of the machine, therefore, an active force is in operation, whilst at the other extremity the conditions are rather of the passive order. The resistance of that extremity which has an increased angle of incidence given to it makes itself felt, and there is no corresponding resistance at the opposite end of the flying machine to neutralise the swerving effect which it induces; on the contrary, the resistance there is less than in the normal condition of straight line flight, so that the swerving effect is outside. Hence the need for using the rudder.

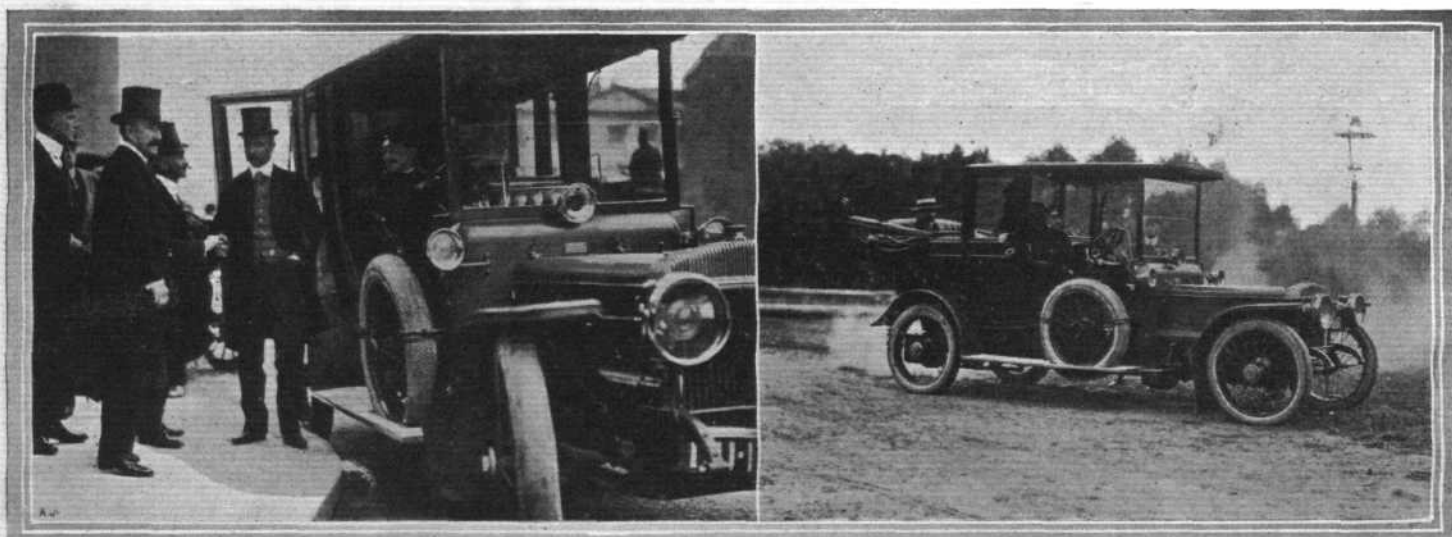
A Word of Warning.

Owing to a slight misunderstanding between ourselves and Messrs. Ogilvie and Searight, the foregoing article has been published by us without their prior knowledge. It should, moreover, be clearly understood that this particular glider of theirs was built by them at the express suggestion and with the direct permission of the Wright Brothers, pending the delivery of the full-sized motor-driven Wright machine which Messrs. A. Ogilvie and T. P. Searight have on order with them.

GLIDERS AND HOW TO GLIDE.

THIS week we conclude our minute description of the Wright-Clarke glider; and from it much will doubtless be learnt by those who are anxious to acquaint themselves with the art of flying, as far as it is at present known. There must, however, be many readers who are as yet none too familiar with the early work of the Wright Brothers—work which is of the very greatest significance just at the present time. We therefore propose to continue this subject by publishing the historic paper in which those celebrated brothers first gave an account of their doings to the scientific world, since that paper enables the whole principles involved to be understood, and, in

these great pioneers' own words, explains exactly how they carried out those experiments and splendid glides which led ultimately to their present marvellous flyer. As may be imagined, it is a course of study which should enable others to follow in their footsteps, with the ultimate hope of further improving upon the splendid achievements already attained. The paper in question appeared in *The Automotor Journal* shortly after it was read, when hardly a hundred men in the world gave credence to the Wright Brothers' feats—a sure token of the belief that was held by that Journal in their work being that the paper was published by it in full even then.



M. Bleriot leaving the French Embassy on his visit last week, and on his way back from Wembley on the 6-cyl. "New Daimler," which he used throughout his visit to London.

AERO CLUB OF THE UNITED KINGDOM.

OFFICIAL NOTICES TO MEMBERS.

Fixtures for 1909.

September 25... International Aeronautical Exhibition, Paris.
October 3 ... Gordon-Bennett Balloon Race, Zurich.

Committee Meeting.

A meeting of the Committee was held on Tuesday, September 21st, 1909, when there were present: Mr. Roger W. Wallace, K.C., in the chair, Mr. Ernest C. Bucknall, Col. J. E. Capper, C.B., R.E., Mr. Martin Dale, Prof. A. K. Huntington, Mr. C. F. Pollock, Hon. C. S. Rolls, Mr. J. Lyons Sampson, Mr. Stanley Spooner.

New Members.—The following new Members were elected:—

Douglas Archibald.	Henry Johnson.
F. H. B. Claudet.	Charles Reg.
W. B. Fesson.	Mrs. Reg.
Dr. Graham-Gilmour.	F. J. Toulmin.
W. B. Hall.	Hugh Wyatt.
Lady Jenkins.	

Club Subscription and Entrance Fee.

At a meeting of the Committee held on Tuesday last, it was resolved that in view of applications for membership coming in so rapidly, the subscription will be increased and an entrance fee charged after the first thousand members have been elected. The first thousand members will be designated "Founder Members."

Conference of the Federation Aeronautique Internationale.

The following members have been appointed delegates to represent the Aero Club of the United Kingdom at the Conference of the Federation Aeronautique Internationale which takes place in Zurich on September 30th, 1909:—

Roger W. Wallace, K.C., Vice-Admiral Sir Charles Campbell, Capt. A. H. W. Grubb, Frank McClean, A Mortimer Singer.

Gordon-Bennett Balloon Race.

The Gordon-Bennett Balloon Race will take place at Zurich on October 3rd next. The Aero Club will be represented by Mr. F. K. McClean, who will have as aid Mr. A. Mortimer Singer. The new balloon, the "Planet," of 80,000 cub. ft. capacity, belonging to Mr. Singer, will be used in the race.

Provincial Aero Clubs.

The question of arrangement under which properly constituted Clubs in the Provinces can be associated with the Aero Club of the United Kingdom, was again fully discussed by the Committee. The Aero Club is now prepared to consider application from any such bodies.

Juvisy Aviation Week.

Railway Arrangements.—The South-Eastern and Chatham Railway are issuing excursion tickets from London to Paris, available for fourteen days, on the following dates:—October 1st, 2nd, 8th and 9th. The trains leave Charing Cross at 10 a.m. and 2.30 p.m. (Paris arrive 11.26 p.m.) via Boulogne: or by the 9 p.m. service via Calais. The fares are as under:—

First class, £2 18s. 4d.; Second class, £1 17s. 6d.; Third class, £1 10s.

Flying Grounds at Shellbeach.

Club House.—The Committee of the Aero Club are proposing to take over Muscle Manor for a Club House on the flying ground. In order that this may be effected, and in view of the very large expenditure which has already been made at Shellbeach, the Committee appeal to the

Members for special subscriptions for this purpose. The Golf Course will be taken over for the use of Members, together with the shooting rights extending over 1,000 acres.

The following sums have already been promised:—

A. Mortimer Singer, £25; Frederic Coleman, £10; F. K. McClean, £10; Hon. Maurice Egerton, £10; F. P. S. Harris, £10; J. T. C. Moore-Brabazon, £5 5s.; Mrs. J. T. C. Moore-Brabazon, £5 5s.; A. E. George, £4 4s.; H. Massac Buist, £2 2s.; Kenric B. Murray, £2 2s.; C. R. Park, £1 1s.

Telephone.—The telephone has now been installed. Members wishing to telephone there are requested to ask for Shellbeach, Minster, Sheppey, no number being required. The telephone is installed in the Club House, and also to the sheds on the grounds.

Erection of Sheds.—Members wishing to erect sheds at Shellbeach are requested to apply to the Secretary, who will supply all information.

Members visiting the flying ground are requested to have with them their membership cards, as strict instructions have been given to admit only Members to the flying ground.

Railway Arrangements.—The following reduced fares have been arranged with the railway company for members visiting Shellbeach:—

1st Class return, 8s.; 2nd Class return, 6s. 6d.; 3rd Class return, 5s.

Tickets available for one month from date of issue.

Members desiring to avail themselves of these reduced fares are required to produce vouchers at the booking offices. Vouchers can be obtained from the Secretary of the Aero Club. Trains leave Victoria, Holborn, or St. Paul's.

For the convenience of Members, the best train is the 9.45 a.m. from Victoria, arriving at Queenborough 10.55. At Queenborough change to the Sheppey Light Railway for Leysdown (Shellbeach), which is $\frac{3}{4}$ mile from the flying ground.

HAROLD E. PERRIN, Secretary.

The Aero Club of the United Kingdom,
166, Piccadilly, W.

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Marquis de Polignac Honoured.

A LARGE share of the success of the Rheims week was due to the unremitting labours of the President of the Organisation Committee, the Marquis de Polignac, and his work has now been officially recognised by the Government, in conferring upon him the dignity of a Chevalier of the Legion of Honour.

An Album of Flight.

ARTISTICALLY reproduced, no photographs could be of greater interest than a series portraying dirigibles and flying machines at close quarters. We have seen nothing to equal in real merit in this respect the admirable album of illustrations which the Continental Co. have just published. It contains pictures, all of which are beautifully reproduced, of the leading airships and flying machines which have envelopes made of "Continental" fabric. There is the "Zeppelin III," of 1907, and "Zeppelin IV," of 1908, the "Gross" and the "Parseval," the "Ville de Paris" and "La Republique," to mention only the more notable of the world's great airships. The album which the Continental Co. have published is essentially a work which should be secured by those who are starting a flight library.

PROGRESS OF FLIGHT ABOUT THE COUNTRY.

(NOTE.—Addresses, temporary or permanent, follow in each case the names of the clubs, where communications of our readers can be addressed direct to the Secretary.)

Birmingham Aero Model Club (10, WYNN STREET).

AT a meeting held on the 17th inst. at the People's Hall, Hurst Street, the formation of an Aero Model Club for Birmingham was decided upon. Mr. R. Cobham presided, and pointed out that although they were quite in sympathy with the Midland Aero Club, they thought the subscription of one guinea was more than many working men could afford to pay. The chief advantage of the club, he said, was that it would give the members the opportunity of co-operating and collaborating in the new science, and they would hold periodical exhibitions of models and give prizes for the best designs. Lectures would have to be given, and they would require a properly equipped workshop.

It was decided that the minimum quarterly subscription should be half-a-crown, and Messrs. W. H. Allen, S. H. Jones, A. G. Best, A. Turner, T. Haynes, T. H. Murray, F. A. Binks, J. Sheaf, and R. Cobham were elected as a provisional committee, and the last mentioned gentleman agreed to act as hon. sec. *pro tem.*

Blackpool and Fylde Aero Club (56, COOKSON STREET).

A GENERAL meeting of members was held at the Hotel Metro-pole on the 16th, when Mr. C. V. Haworth presided.

The rules of the club were submitted and adopted, and the following officials were elected: Patron, Mr. C. V. Haworth; president, Hon. C. S. Rolls; vice-president, Mons. M. L. Bleriot; hon. secretary, Mr. Jack Kemp; hon. treasurer, Mr. T. H. Blane; hon. auditor, Mr. H. E. Leivers; committee, Messrs. H. Butcher, J. A. Corry, J. Wrigley, J. Gray, A. T. Houghton, and E. Edwards.

By way of commencing the Library, Mr. C. V. Haworth promised to present the Club with Mr. F. W. Lanchester's two volumes on Aeronautics; and it was decided that a series of lectures should be arranged for the coming winter. The Club has offered its services to the Blackpool Corporation for the aviation week, and has also applied to the Aero Club of the U.K. for affiliation.

Coventry Aeronautical Society (18 and 19, HERTFORD STREET).

As we recorded in our last issue it was decided, at the meeting on the 14th inst., to proceed with the formation of an aeronautical society for Coventry, the objects to be more those of a technical institution than of a sporting club. Mr. E. Walford, on whose initiative the movement has been started, gave his views on the matter, and these found ready acceptance from the large number of interested people present. He suggested that they should have a library of the best existing literature on the subject open to the members, and that papers should be read and competitions of models and propellers and that sort of thing should be held, and assistance given to local inventors. Also, they might endeavour to obtain what was more important, a ground in this neighbourhood where one could fly full-sized machines.

After a full discussion on these points, Mr. Vernon suggested that the meeting should elect a provisional committee for the purpose of obtaining particulars of other societies, and how they were constituted, and their more important aims and objects, also for the purpose of drawing up a constitution for the Society and a set of rules, &c., which should be submitted to a further meeting. He pointed out that this work would entail a certain amount of research, and probably the appointment of a provisional committee would be the best means of getting the Society going in the proper way.

This was embodied in the form of a resolution, and passed. Mr. E. Walford having agreed to act as hon. sec., Messrs. John V. Pugh, W. G. Aston, C. G. Parrott, P. V. Vernon, M. J. Schulte, A. Craig, A. S. Hill, J. W. Crosby, E. W. Lewis, J. W. Roebuck, C. Ridley, H. C. Hill, Rhys Pugh, H. D. Teage, A. W. Macleod, P. A. Poppe, F. H. Bale, and J. S. Napier were elected as the provisional committee, with power to add to their number.

Liverpool Aviation Society (1, EXCHANGE STREET, WEST).

ALREADY the membership of this society numbers well over 100, and is constantly being added to. Great activity is being displayed by the members, and it is hoped that within the next two or three weeks it will be possible to arrange for a demonstration or model flying. Shortly, too, some of the members will be experimenting with full-sized gliders, of which six are being built. It is likely, therefore, that a good deal of useful information will be forthcoming as the result of these tests.

Manchester Aero Club (9, ALBERT SQUARE).

THE membership is mounting up very rapidly, and at the

beginning of the week stood at 245, while a large number of names were being sent in every day. On Wednesday Mr. Cody visited Manchester to make arrangements with the Club with regard to his proposed flight from London to Manchester for the *Daily Mail* £10,000 prize.

Newcastle Aero Club (4, ROSEBERRY CRESCENT, JESMOND).

ALL those in the neighbourhood of Newcastle-on-Tyne who are interested in the science of aviation are asked to communicate with Mr. J. F. Fairbairn-Crawford, who is endeavouring to arrange for the holding of a public meeting, at which the question of forming an aero club or society for Newcastle can be considered. It is suggested that such an institution should take the form of those which have been established in our large cities in the country.

The objects and advantages of such a club would be that members could meet and exchange ideas, design and build models, eventually obtaining or building a full-sized aeroplane; and to generally foster the public interest in aeronautics. Debates and lectures would be organised also.

Scottish Aeronautical Society (185, HOPE STREET, GLASGOW).

So successful was the first kite-flying and model demonstration that another has been arranged to take place on Saturday, October 2nd, and it is hoped that many members will be exhibiting kites and models.

The Society has been asked to superintend the competition for the £1,000 prize for a flight from Edinburgh to Glasgow, and also the £500 prize for crossing the Firth of Forth, for which there are already four entries.

M. Louis Beriot and Mr. Hubert Latham have both been elected hon. members of the Society. The membership is quickly growing, and to anyone who would like to join the Hon. Sec. will be pleased to send application forms.

Sheffield Aero Club (36, COLVER ROAD).

AN informal meeting was held on Tuesday evening, 14th inst. There was a very good attendance of most enthusiastic persons, and a provisional committee being elected, it was decided they should make arrangements for a public meeting at the earliest convenient date, at which a lecture is to form a part. At this meeting a resolution will be submitted to the effect that the formation of a Sheffield Aero Society should be proceeded with and it will also be proposed that a permanent committee be elected, who will draft rules, to be subsequently approved by a full meeting of members. It was decided to assist Mr. Cody in his attempt on the London-Manchester flight, the secretary having been in communication with Mr. Cody on the matter. Mr. C. Wightman, who is acting Hon. Sec. (*pro tem.*), will be pleased to hear from any further interested persons in the vicinity of Sheffield who may as yet not be in touch with him.

S.W. England Aeronautical Society (51, ST. LEONARD'S ROAD, EAST SHEEN).

THE membership of the above Club is forging ahead; the Secretary hopes to have a membership of 200 before Christmas. At the next general meeting on October 3rd, at 3 p.m., a demonstration of a remarkably light model engine will be given.

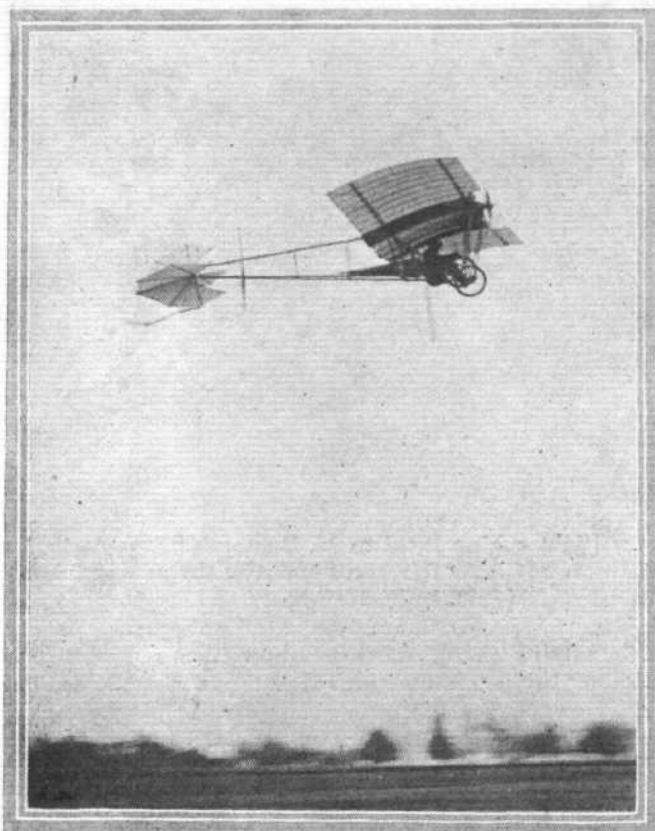


MODEL AWARDS AT THE SPORTS AND TRAVEL EXHIBITION.

THE Secretary of the Aerial League sends us particulars of the awards concerning the competition for models exhibited at the Sports and Travel Exhibition in July last, which have been confirmed by the Executive Committee of the League. The awards are as follows:—

1. That sufficient originality and excellence were not shown in any of the models to justify the Committee in conferring the honour of the gold medal of the League upon any of the competitors.
2. That Mr. T. W. K. Clarke and Mr. G. P. B. Smith be bracketed equal for first place, and should each be awarded a silver medal of the League.
3. That Mr. H. B. Webb be awarded third place and the bronze medal of the League.

M. SANTOS DUMONT'S NEW ACHIEVEMENTS.

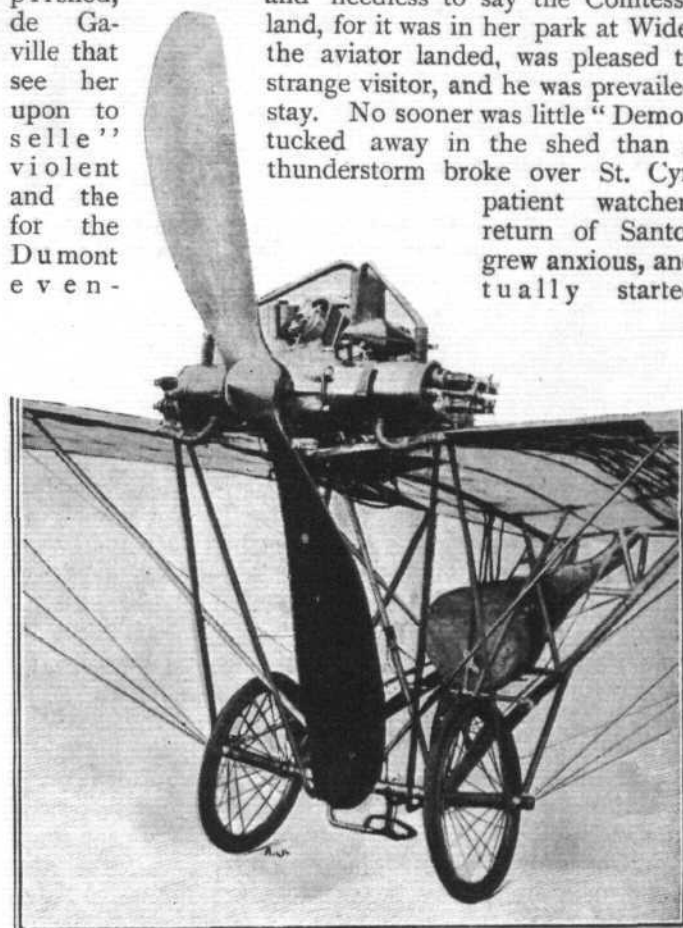


M. Santos Dumont in full flight on his "Demoiselle," with which he has recently accomplished such sensational journeys.

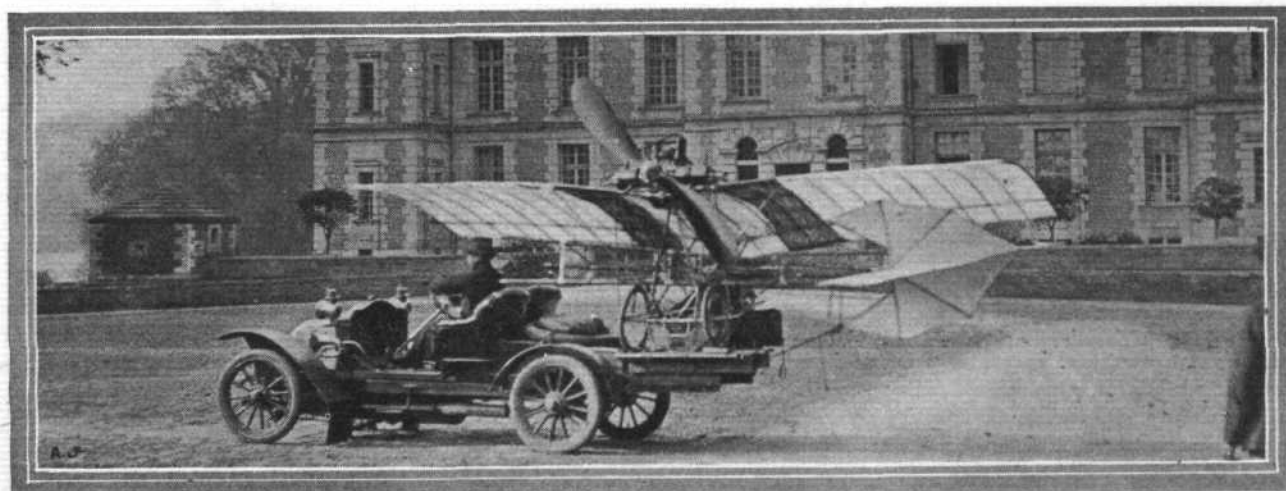
Santos Dumont Holds "Jumping Off" Record.

IT is a long time since M. Santos Dumont had a flying record standing to his name, but he has now secured the honour of being able to rise from the ground in the shortest distance. The official record of the Aero Club of France states that M. Santos Dumont rose from the ground after travelling 70 metres in $6\frac{1}{2}$ seconds, thus beating the record of Mr. Glenn Curtiss, who got up in 80 metres. The "Demoiselle" actually rose when only 40 metres had been covered, but it touched earth again, and 70 metres were traversed before the little flyer got clear away.

M. Santos Dumont had an interesting experience on the 17th inst., which illustrates how it will be possible to visit one's friends by aeroplane when they become more reliable and more common. He started off from St. Cyr for one of his little excursions, but was so enraptured with the flight that he kept on until miss-firing of the motor reminded him that his petrol supply was limited. He then found he had lost his bearings, but seeing a house in the distance he determined to come down in the surrounding park. This was safely accomplished, and needless to say the Comtesse land, for it was in her park at Wideville that the aviator landed, was pleased to see her upon to strange visitor, and he was prevailed upon to stay. No sooner was little "Demoiselle" tucked away in the shed than a thunderstorm broke over St. Cyr, and the patient watchers return of Santos grew anxious, and tually started

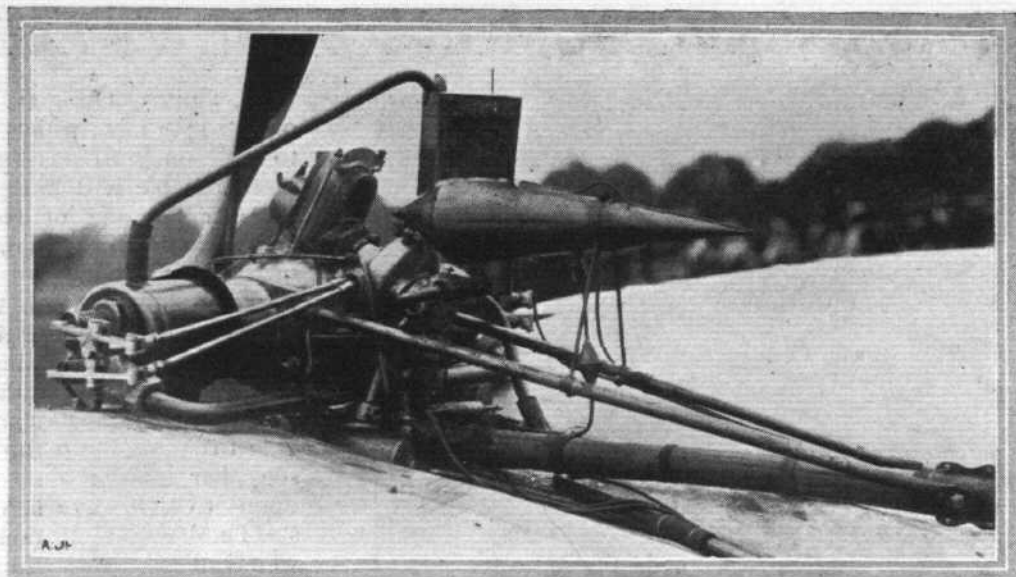


The Darracq flight engine and propeller used by M. Santos Dumont in his splendid flights across country.



From our picture above the size of M. Santos Dumont's "Demoiselle" can perhaps best be realised by our readers. After a flight, M. Dumont, if disinclined to return by the air, simply hoists his flyer into his car and returns home with his "accessory" by road, although hardly as rapidly as when in free air.

searching the surrounding neighbourhood for tidings of him. Subsequently one of the sons of the Comtesse, who had seen Santos Dumont start, returned home, and was somewhat astounded to see him calmly sitting down at supper. The distance flown was about 17 kiloms., which was covered in about a quarter of an hour. On the previous day M. Santos Dumont made two flights, one from St. Cyr to Buc and back, and another in which he demonstrated the ability of his little machine to carry weights out of balance. A weight of about 40 lbs. was attached to one side of the frame, but in spite of this the flyer kept an even keel, and, moreover, maintained it when the weight was suddenly released. On Saturday last at St. Cyr M. Santos



View from behind of the Darracq flight engine fitted to M. Dumont's "Demoiselle." In this the method of operating the valves is clearly seen, and also the arrangement of the magneto, driven by skew gearing.

Dumont further demonstrated the stability of his machine by flying without holding the steering wheel, waving a

handkerchief in each hand to show that he was not controlling the machine, which flew on as usual.

TERMS IN FLIGHT—CO-OPERATION SOUGHT FOR.

As we anticipated would be the case, extremely widespread interest has been evinced by the publication a fortnight ago of our "Terms in Flight." Keeness to help along the work of providing a glossary of aviation terms which shall be easy to acquire and remember is evident on all sides, and we are glad to find that the terms already put forward by ourselves have received, almost without exception, universal commendation.

From Major B. Baden-Powell we have received a letter which is of considerable importance in this connection also. Those of our readers who can give suggestions to the Aeronautical Society should hasten to do so as asked by Major Baden-Powell, in order that as perfect and as wide a glossary of terms as possible, by way of a start, may be got together for immediate official adoption.

Major Baden-Powell's communication is as follows:—

"With reference to the illustrated glossary of terms which you published in your issue of September 11th, some of your readers may be interested to know that a committee of the Aeronautical Society has recently been formed for the purpose of investigating and discussing the terminology applicable to the subject. Your suggested words will be most useful, but should any of your readers have other suggestions to make, we hope that they will be good enough to forward them to the Secretary of the Committee at 53, Victoria Street, S.W."

In the few cases where differences of opinion have been expressed, they are of a helpful nature, and can, in most instances, be used as alternative words. As a single

Erratum in "Terms in Flight."

MORE than one correspondent has drawn our attention to a printer's error that occurred in our original article, which appeared under the date of September 11th. Owing to the dropping out of a line in the text about three-quarters of the way down the first column, the reading matter concerning the "angle of incidence" and the "angle of trail" was rendered rather confusing. No real difficulty may have presented itself, inasmuch as the

example of this, we would mention the excellent suggestion of "Aer," the clever compiler of the Aviation Notes in the *Daily Mail*, who wrote recently as follows:—

"Vocabulary of Aviation.

"The editor of FLIGHT has made a very commendable effort to devise a set of terms which will suitably describe the parts of the flying machine, and it would be well if these were officially adopted as standard forthwith. There is just one detail in which I do not agree with him. He calls the vertical panel of the Voisin machine a 'curtain,' but the term is not quite a happy one. I submit 'panel' as an improvement. The French are now calling this type of machine the 'cloisonné,' but we had better have a word of our own. Otherwise the FLIGHT nomenclature is admirable."

We agree that "panel" is a very happy word, which should, at any rate, be bracketed as synonymous with "curtain" even if it be not decided to substitute it entirely.

We have also received a letter from Messrs. Markham and Prance which reads as follows:—

"We notice in your issue of the 11th inst. a most useful article upon 'Terms in Flight;' but whilst agreeing with the general excellency and correctness of the terms suggested, we feel we must take exception to one of the innovations proposed, and that is the use of the term 'deck' instead of plane. Surely, the latter word is more descriptive, and as the whole machine takes its very name from this portion, is it not inconsistent to employ another word to denominate the said portion? We feel confident that others interested in the technical and commercial side of aeroplanes will agree with us upon this point, and trust that they will support our contention by expressing their opinions upon the matter, which, whilst but a minor detail, is just one of those details it is advisable should be settled from the first."

accompanying diagram was quite lucid in itself, but for all that we now quote the two affected sentences as they should have appeared, and give the missing words in italics:—

"The tangent to the leading edge of the deck makes with the chord the 'angle of entry,' while the tangent to the trailing edge of the deck similarly makes with the chord the 'angle of trail.' The chord itself makes with the horizontal the 'angle of incidence,' and defines the 'attitude' of the plane, while the numerical value given by the ratio of the span to the chord similarly defines its 'aspect.'"

MORE PIONEER WORK IN GREAT BRITAIN.

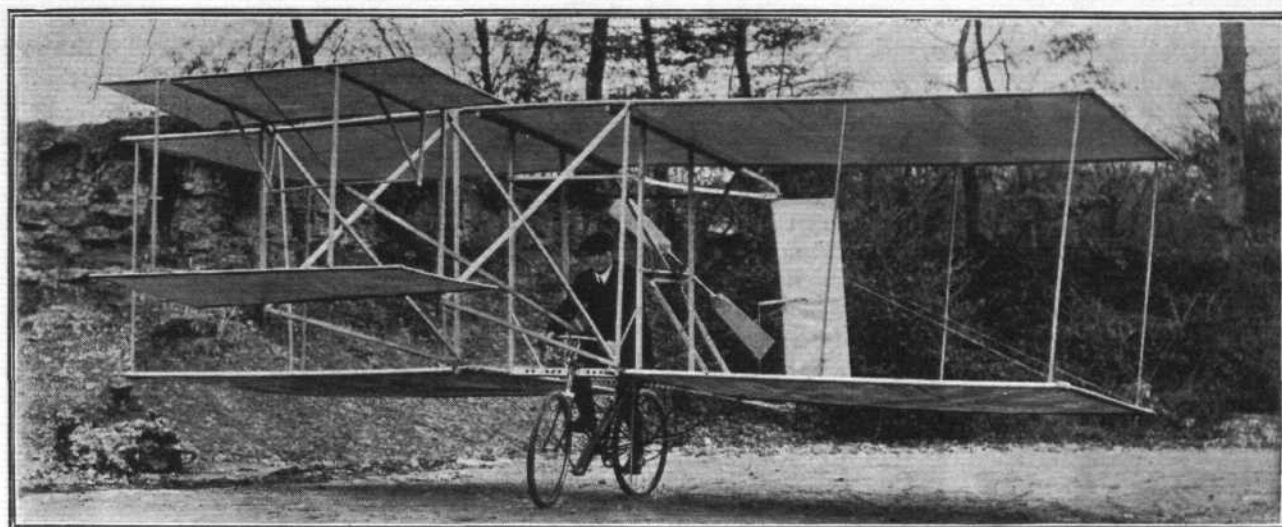


Fig. 1.—Mr. C. H. Parkes mounted on the experimental biplane which was built by him upon a bicycle, and had its propeller coupled up to the pedals.

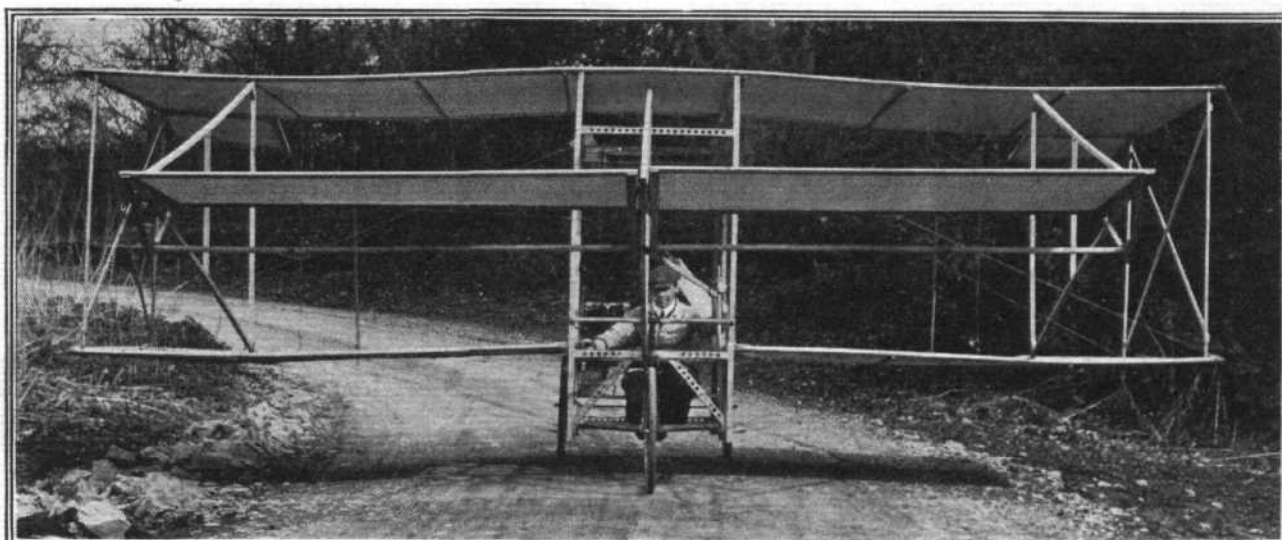


Fig. 2.—The improved biplane built by Mr. Parkes was equipped with a twin-cylinder air-cooled engine of 4-h.p. ; and with this machine he was able to accomplish "jumps" of from 10 to 40 ft.

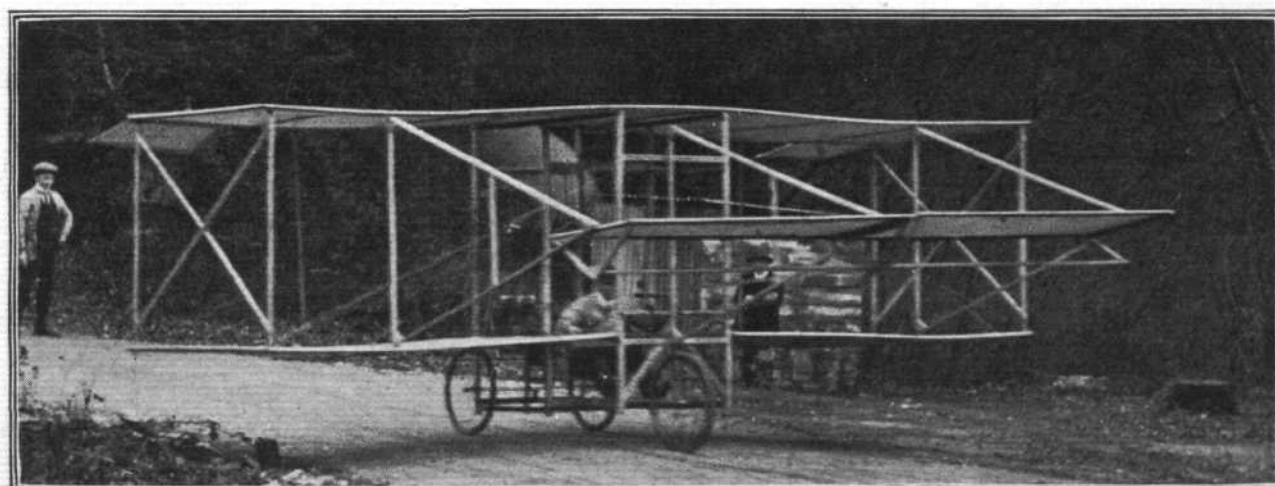


Fig. 3.—In the above photograph may be seen the position of the 4-h.p. motor and of the three supporting wheels on Mr. Parkes' later biplane, which weighed 350 lbs. with himself seated upon it.

spite of the apparent backwardness of this country in matters affecting the conquest of the air by heavier-than-

air flyers, yet a considerable amount more pioneer work has in reality been going on in this direction during

KITE-FLYING AS AN ART.

MAJOR G. H. FINK, of Cliftonville, Margate, whose Vakata kites created so much interest at the Kite-Flying Association's contest, has sent us the following interesting letter, which, if taken to heart by the readers of *FLIGHT*, should result not only in the advancement of aviation in its elementary stages, but will necessarily be a source of most entertaining sport for adults and youngsters alike. Major Fink writes:—

"A great engineer who studied the art of flying in the scientific way for twenty-five years, once said, 'Every bird is an acrobat. Whoever would master the air must learn to imitate the bird's dexterity.'

"The same might be said of the kites which I use. They are more like birds than any other kites I have seen, when flying in the air. You can make them perform a great variety of movements with the finest precision, but like everything else, these movements must be learnt, and once acquired can never be forgotten. The eyes, the hands, your reel and line with the kite flying at the end, all seem to act in unison, and the slightest indication communicated by the hand to the reel and line is carried instantly to the kite, which performs the particular manoeuvres you desire. The eyes and the hands of the flyer are the two principal agents for carrying out the movement with precision, and this, as in a fine stroke in the game of billiards, is the more perfect as you cultivate that 'muscular sense' which is acquired by practice. Kite-flying and the managing of a kite properly, so that all the movements you conceive are performed perfectly and well under control, is like walking and swimming or skating—it is easy when you have learned how.

"There are points which I feel sure are most useful and necessary to acquire in the controlling and guiding of any machine, but the more so in so delicate a construction as an aeroplane.

"The two pioneers of aerial navigation at the present day—the Wright Brothers—I believe, first commenced in childhood with toys, then with helicoptères and kites, before experimenting with their gliding apparatus.

"What the child admired,
The youth endeavoured,
And the man acquired."

"From their later achievements, and the slight mistakes from time to time, much has been acquired by them which others might profit by who are making a study of aeroplanes and the art of flying. One thing is evident as we watch the accounts given of their flights, how very necessary it is to have that fine muscular sense I have just referred to in perfect condition at the time, and this is only by retaining sound bodily health. Mind and body act and re-act upon one another, and the management and control of an aeroplane require qualities of nerve and body to perform with a nicety and perfection to prevent mistakes and accidents.

"I maintain that those who are working at the subject of aeroplanes and the art of flying would find it a distinct gain to fly kites

which require intelligence in handling and keeping under control with that nicety of judgment which is so necessary with the kites I have introduced in my game of Vakata. That same intelligence and correct judgment, in the flight of aeroplanes, is very necessary to acquire.

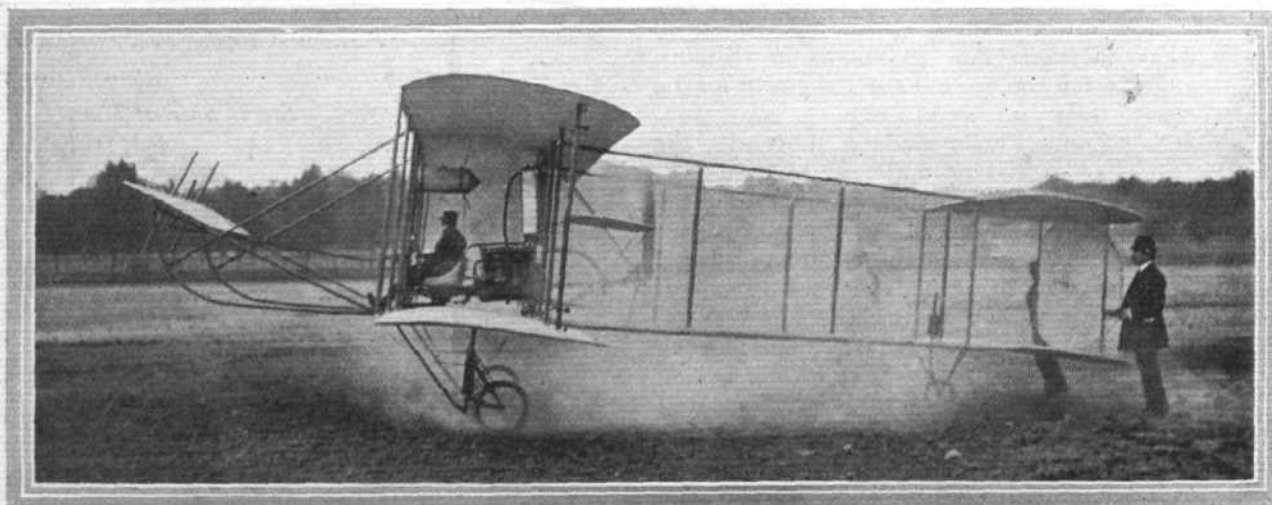
"The kite has been described as a 'captive aeroplane,' and we cannot do otherwise than benefit by becoming dexterous in the handling of such kites as I have mentioned, for you not only study their construction and powers of floatability or levitation (to coin a word) in different currents of air, but your cultivation of acquiring that peculiar muscular sense must help considerably in the managing of the non-captive aeroplanes which are of a more delicate mechanical construction, and which require finer adjustment. There is much, therefore, to be learnt in the handling of a particular type of kite which needs skill in directing with precision as well as power.

"Moreover, one learns to safeguard one's machine in various currents, and to get the fullest advantage out of a weak current of air. A good kite in the hands of an unskilled flyer would become a wreck in less than a minute, while in the hands of a dexterous one it might last for months, nay years! In a very, very strong current, where one's kite and line are severely taxed, by skilful management a dexterous flyer soon learns to guide his kite out of the zone of danger.

"Such an acquisition is very necessary in the case of the aeroplane of to-day, and you therefore cannot learn too much about the control and management of such kites as I have described without being a distinct advantage in the solving of the problems of aerial navigation.

"There are other points I should liked to have been able to mention, but I would prefer to defer them for a future occasion until after my experiments have been made. There is one thing, however, which I feel convinced of in the matter of solving the problem of aerial navigation, that however perfect might be the mechanism of the aeroplane, and however near to the mechanism and movement of the bird that machine might imitate, there are still conditions in the bird with regard to its body construction which give it its powers of floatability or ability to poise itself in various atmospheres which no aeroplane has yet been able to achieve, and, until such are introduced, the art of flying will always be attended by failures, and there will be want of perfection in flight. Take, for instance, the art of floating on your back in water. Some find it easier than others, and it is easier in sea water than in a swimming bath. The full inflation of the lungs and letting yourselves go into a state of passive stillness helps considerably.

"If such be the conditions to ensure our floating, there must be similar conditions in various birds to enable them to poise in various atmospheres with stillness, and not a single move of a feather. How is this accomplished? I maintain it is the inflation of the lungs, and some birds have a greater air capacity in their lungs than others, and some have larger lungs relative to size of body and body weight than others, and this—what I term floatability or levitation, for want of a better word to express myself—is, in my opinion, a very great feature necessary in solving the problem of aerial navigation."



The Clement-Bayard aeroplane, which is now being experimented with by M. Maurice Clement.

AVIATION NOTES OF THE WEEK.

The King and Mr. Henry Farman.

THE nationality of Mr. Henry Farman has time and again been called into question. Any doubt should once and for all be disposed of by the following announcement in the *London Gazette* last week:—

"The King has been pleased to give and grant unto Henry Farman, Esq., His Majesty's royal licence and authority to accept and wear the Cross of Chevalier of the Legion of Honour, conferred upon him by the President of the French Republic, in recognition of valuable services rendered by him."

Blackpool Week Certain.

APPARENTLY there is every prospect of the flying week at Blackpool from October 18th to 24th being carried through with success. Alderman J. Bickerstaffe and Councillor A. Parkinson, who went to France as a deputation from the Blackpool Corporation, report that they have been able to make agreements with most of the leading aviators, and that the only thing necessary for the complete success of England's first aviation week will be fine weather. Mr. Henry Farman has promised to take part, the Ariel Company have arranged to send two Wright machines, and Delagrangé or one of his pupils will compete, whilst M. Paulhan is almost certain to be present.

In view of the deputation's report, the work of preparing for the meeting is now being rapidly pushed forward.

Plans for the laying out of the ground have been drawn up by Mr. J. S. Brodie, the Borough Surveyor, and approved by the Executive Committee, and tenders for the grand stands, barricading and sheds have been invited. The main stand is to seat 3,500 people and there will be a special stand to hold 1,500, while there will be an additional 15,000 seats in the enclosure as well as practically unlimited space in the popular part. The aerodrome is outside the borough boundary and the Chief Constable of the County, Capt. Ibbetson, has intimated that the work of policing the aerodrome will be undertaken by him and the expense borne by the county.

Hotels at Blackpool.

IN connection with the Blackpool Aviation Meeting, we hear that two of the French aviators will be staying at the Buckingham Private Hotel at Claremont Park, and that many others who intend to be present, remembering their experience at this establishment at the time of the last motor race meeting, have taken time by the forelock and already booked their rooms. The proprietor is a member of the Lancashire Aero Club, and will spare no effort to make his many friends comfortable during their stay.

Proposed Doncaster Flight Week.

ANNOUNCEMENT is made that a five days' aviation meeting is to be held at Doncaster during next month, under the auspices of the Corporation, who have guaranteed £5,000 towards the expenses. It is stated that engagements have been made with MM. Delagrangé, Paulhan, Rougier, Fournier and others, and that the general arrangements will be in the hands of M. Reichal, of Paris, who thinks the Town Moor will be an ideal ground for such competitions.

"Daily Mail" Circular Mile Flight.

It is announced by the *Daily Mail* that they now have a dozen entries for their £1,000 prize for the first

British machine which flies over a circular mile, piloted by a British aviator. Messrs. A. M. Grose and N. A. Feary, of Cambridge, have entered their 20-h.p. monoplane, and Mr. G. A. Barnes, well known as a racing motor cyclist, has also entered a monoplane. The other competitors are Messrs. R. F. Macfie, Edward M. Ling, Frank Maclean, Jack Humphreys, Howard Wright, A. V. Roe, J. A. D. McCurdy, F. W. Baldwin (Canada), and J. C. Neale.

London to Manchester Flight.

It is hoped that when Mr. Henry Farman and M. Paulhan visit England next month they will make an attempt to secure the *Daily Mail* £10,000 Prize for the flight from London to Manchester, if Mr. Cody has not won it before them. On Tuesday last Mr. Cody motored from London to Manchester, in order to spy out the land with a view to making his attempt in the very near future.

A Glider at Portsmouth.

ON the evening of the 17th inst. a glider was tried on the Portsdown Hills by two young naval officers, Lieuts. Porte and Pirie, attached to the Haslar submarine dépôt. The glider is of the biplane type, as seen in our frontispiece, but with the upper plane placed a good deal in advance of the lower one. There is no elevator in front, but elevating and steering planes are placed between the main planes at the ends, and there is a tail. With both officers seated in it the machine was mounted on a trolley and run along a temporary track, but it failed to rise, and eventually pitched forward and collapsed, both officers being thrown out but escaping unhurt. The design is particularly promising, and we have little doubt that after a few lessons have been learnt a practical machine will be evolved.

A 35-mile Flight Reported at Liverpool.

It is reported from Liverpool that three practicable monoplanes have been constructed in the neighbourhood, and that on one of them, a flight of about 35 miles has been made. It is said that the trials of these machines have been carried out in secret on a lonely part of the Lancashire coast, north of Liverpool, and along the Deeside in the neighbourhood of West Kirby.



Striking placard for the Berlin Flight Meeting at which Latham is announced to compete, commencing Thursday of this week, on the Tempelhof Field.

Mr. Farman to go to Coventry.

It is announced that there is every likelihood of Mr. Henry Farman being seen flying in the neighbourhood of Coventry before long, as Mr. Ballin Hinde has made a contract with him relative to the development of his machine in this country, one condition of which is that Mr. Farman is to give exhibitions of flying, both on his new and old machines, at Coventry, which once more speaks volumes for Mr. Ballin Hinde's shrewd judgment.

British-Built Engines and Bleriot Monoplanes.

In addition to building light engines for flyers, it is announced that Messrs. Humber, Ltd., have now arranged to build fifty Bleriot monoplanes at the price of £400 apiece. Coventry will therefore be the first town in Great Britain to take up seriously the manufacture of flying machines. This enterprise is due to Mr. Ballin Hinde, who is also arranging for the manufacture of Voisin and Farman machines at Coventry.

Aeroplane Control.

IF in all phases of motoring reliability is regarded as above all things essential, this is more particularly the case with the aeroplane, which more than anything else depends upon the satisfactory working of every part if safety is to be assured. Here any failure or derangement of the means of controlling engine or planes must almost certainly end in a serious mishap, and naturally the flying man should give special attention to these features of his machine. It is noteworthy that Mr. S. F. Cody, like M. Bleriot and most other aerial navigators, pins his faith to the Bowden wire mechanism for controlling purposes, and used this well-known device in his recent successful cross-country flight.

Bordeaux to be the Next Year's Big French Meeting.

HAVING guaranteed the sum of 200,000 frs. to be distributed in prizes, the Aero Club du Sud Ouest and the Ligue Meridionale Aérienne have induced the Aero Club of France to approve of the proposal to hold a big aeronautic meeting in the Bordeaux district next

Mr. Cody's Radiator.

It would appear that although, as mentioned last week by us, there was a leakage of water in the cooling system on Mr. Cody's flyer, the fault was in no way the radiator proper. It was, so Mr. Cody explained, simply from one of the rubber connections from the engine to the radiator which had pulled or burst off. This is but in accordance with what all those who are acquainted with the spiral type of radiator tube, which is used by Mr. Cody, would have expected.

A Bleriot for Yorkshire.

MR. ALBERT HOUSE, who was the first to own a motor car in Yorkshire, believes that he will have a similar honour with regard to an aeroplane. He has ordered a monoplane from M. Bleriot, and delivery is promised for December. Mr. House is now on a visit to the Bleriot works, where he is making himself *au fait* with the construction and manipulation of the flyers.

M. Tissandier as Pilot.

AT the last meeting of the Committee of the Aero Club of France it was decided to grant a pilot's certificate to M. Paul Tissandier.

Orville Wright's Records—Height and Passenger.

It was by a strange coincidence that Orville Wright should have succeeded in beating the world's record for altitude, and so placing another triumph to his credit, on the anniversary of the day when disaster overtook him and Lieut. Selfridge in America last year. True, his new record was but short lived, but it was a notable achievement to raise Latham's record of 155 metres to 180 metres. The record was made during a flight which lasted 55 minutes. Previously, Orville Wright had flown with Capt. Engelhardt for 55 mins., and both these performances were witnessed by the German Emperor, Prince Adalbert, Prince August Wilhelm, and Princess Victoria Luise. On Saturday last Orville Wright placed another record to his credit, namely, that for a flight with a passenger. He succeeded in carrying Capt. Engelhardt for 1h. 35m. 47s., thus considerably improving on his old record of 1h. 12m. 36s. with Lieut. Lahm. Subsequently, an attempt was made on the world's duration and distance records held by Mr. Farman, but after flying for 1 hr. 45 mins. motor troubles made a landing advisable, and the attempt had to be abandoned.

Le Blon an Aviator.

LE BLON, who a few years back drove in every important road race, has now taken to aviation. On the 15th inst. he made his *début* at Issy, using a Bleriot monoplane, on which he made a jump of about 10 metres. In landing, the machine pitched forward and damaged the propeller slightly.

Paulhan at Ostend.

PAULHAN made a noteworthy performance on Saturday last by flying for 1h. 1m. 1s. over the sea front at Ostend, between the Royal Palace and the harbour. During the trip it is estimated that he traversed about 47 kiloms. at a height of about 100 metres. The flight was concluded with an exciting incident, as when Paulhan decided to stop, the tide was up, and there was only a



The medal which has been designed by Arnold Hühnerwadel for the Swiss Club for the Gordon-Bennett Balloon Cup Race, taking place at Zurich on October 3rd.

September. The Aero Club of France have also resolved to ask the Fédération Aéronautique Internationale to hold their next annual conference at Bordeaux during the time that the flying contests are being held. The meeting will be held immediately after the conclusion of the Rheims meeting on August 28th, and the site will be the aerodrome of 3,000 hectares at Croix d'Hins, which it was thought the Ae.C.F. was going to take over officially recently.

very narrow place left to land. Paulhan was unable to keep to this small spot, and dropped into shallow water, from which the machine was conveyed to the shore. On the 17th inst. M. Bregi flew 1,600 metres, and in a second attempt covered 4 kiloms. in 4 mins. 58 secs., but in the afternoon Paulhan bettered this attempt, and was awarded the prize of 5,000 francs. For his hour flight on the following day Paulhan secured the prize of 25,000 francs. M. Paulhan is now at Spa.

Doings at Issy.

It has been decided to hold the three days' flying meeting at Issy on October 30th and 31st and November 1st, and it is likely that many of those aviators who have had their first lessons on the famous ground will take part.

Early in the week Legagneux was experimenting with a monoplane which bore considerable likeness to M. Santos Dumont's "Demoiselle," and M. Bunau Varilla was also trying his Voisin machine, to which he has now fitted a Gnome motor.

On Tuesday M. Bleriot was "exercising" his new monoplane, and, after flying round the ground two or three times, M. Molloy, an engineer in the Surcouf works, took his place in M. Bleriot's seat, and was given his first lesson.

Activity at Chalons.

CHALONS CAMP resumed its old time activity for a few days last week, when Farman and Latham were both practising on their machines preparatory to going to Berlin. Several new purchasers of Voisin machines, among them Mr. A. M. Singer, MM. Dade, Schuler, Poillot and Nanetio, were also taking instruction from M. Colliex, and on the 17th Mr. Farman gave a first lesson to his latest pupil, Dufour, taking him for a couple of circuits round the camp, and on the 15th he carried Mr. Mortimer Singer for about 3 kiloms.

Clement-Bayard Biplane.

AMONG the newcomers at Port Aviation, one of the most promising is a biplane of the Voisin type—but without vertical curtains—which has been built in the Clement-Bayard works. It has a lifting surface of 60 sq. metres, and is fitted with a 4-cyl. 40-h.p. Clement-Bayard engine weighing 105 kilogs. The span of the main planes is 11.6 metres, while the overall length of the machine is 11.5 metres, and the weight about 500 kilogs. It will be noticed that balancing is effected by small auxiliary planes placed between the main planes. M. Maurice Clement is experimenting with it at the Juvisy aerodrome with the idea of taking part in the competitions there during the fortnight in the beginning of next month.

A New "Voisin" Model.

HITHERTO the different Voisin machines which have appeared have all been very similar, but the latest model presents several differences from the design which has proved so successful in the hands of Delagrangé, Paulhan, Rougier, &c. A radical departure in the new machine is the removal of the elevating plane from the front to inside the box tail, while now the propeller is mounted in front instead of at the rear of the main planes. The aeroplane, which will be tested by M. Chateau, will be a Voisin production throughout, as the motor will be of a new design, for which M. Gabriel Voisin is responsible. Having a bore and stroke of 120 mm. by 140 mm., it is designed to give 48-h.p. at 1,100 revolutions per minute, and weighs 95 kilogs. with magneto, &c.

M. Bleriot Feted by his Fellow-countrymen.

PRACTICALLY all Frenchmen holding official positions in London assembled at Prince's Restaurant on Thursday evening of last week to do honour to their compatriot, who had been the first to fly across the Channel in an aeroplane. M. Paul Cambon, the French Ambassador, presided, and in proposing the health of M. Bleriot said that while he was a *savant* and an inventor, he was also a man full of action and *sang-froid*—a daring man but not a foolhardy one. In replying, M. Bleriot regretted the absence of Mme. Bleriot, due to indisposition, and gave this message to his countrymen:—"Struggle persistently, in order that the application of the science of aviation may be, as it were, our domain, our commercial advantage to preserve for France in this novel industry a supremacy she well deserves, for it is a revolution capable of infinite possibilities."

M. and Madame Bleriot were entertained to luncheon at the Mansion House by the Lord Mayor of London on the same day as the above banquet was held.

M. Bleriot's Plans.

SPEAKING to a *Daily Mail* representative on Thursday of last week, M. Bleriot said that as regards the future his first business would be to see that the 103 monoplanes he has on order were completed and delivered. That should leave him free early in November, when he hoped to achieve his ambition of flying to Manchester. For this he was building a special machine, having a little larger surface than the cross-Channel flyer, and fitted with a 50-h.p. engine. He hoped to make the journey in one flight, without any intermediate stops. After that, M. Bleriot may give up flying, but he intends to hire a large ground between Bordeaux and Pau, where he would train pilots to manipulate his monoplanes.

A New Voisin Pilot.

A VERY promising pilot of the Voisin school is Henri Brégi, who has been doing well at Ostend. His progress was so good that after only four previous lessons, he was able to fly round the camp at Chalons seven times. He looks as though he will be a formidable competitor of Paulhan in the manipulation of Voisin flyers.

Conference at Nancy.

DURING this week the meetings of the International Aeronautical Committee have been held each day at Nancy, when papers have been read and discussed by representatives of various countries. One of the most important was that given on Wednesday by M. Laurent de la Barre, the eminent French lawyer, who took as his subject international aerial law.

Flying in Germany.

ON Saturday last Herr Grade flew $3\frac{1}{8}$ miles in 3 mins. 47 secs. at the Mars flying ground.

Berlin Flying Week.

ALTHOUGH the entries for the Berlin flying week are not so numerous as at Rheims, they include all the most successful aviators, while practically each of them made good flights. Among them are:—

Latham (Antoinette)	Sanchez Besa (Voisin)	Bleriot (Bleriot)
de Caters (Voisin)	Emilio (Voisin)	Leblanc (Bleriot)
Calderara (Wright)	H. Farman (Farman)	Paulhan (Voisin)
Rougier (Voisin)	H. Fournier (Voisin)	Sommer (Farman)
O. Wright (Wright)	Dufour (Farman)	

The arrangements are modelled on the lines of the Rheims week, and flying commences to-morrow, Sunday, and continues to the following Sunday. Included in

the programme is the competition for the Berlin Cup for the best speed over 50 kiloms., while the other contests include those for distance, height, speed and passenger carrying.

Delagrange in Denmark.

LAST week Delagrange's trials on his Bleriot monoplane greatly interested the crowds of Danish people who flocked to see him flying at Aarhus, and on the 15th inst. the King and Queen of Denmark, accompanied by the Royal Princesses, visited the ground. Delagrange gave an exhibition flight lasting for about ten minutes, and landed on a white line drawn in front of the Royal party. In view of the high winds and heavy rains which prevailed during the latter part of last week, Delagrange abandoned his idea to fly across the Cattegat, and is now at Spa, where he intends to fly on his Bleriot monoplane.

AIRSHIP NEWS.

Dirigibles at Frankfort.

AN excursion was arranged to be made with "Parseval III" from Frankfort last Saturday morning, but when the dirigible was being taken from its shed a gust of wind forced it against the roof, and in consequence several holes were torn in it, and the ascent had to be postponed. The following day "Zeppelin III," having had the repairs to her envelope completed, made a little circular trip over the Rhenish Westphalian industrial district.

"Gross II" Redeems her Character.

Two days after the little *contretemps* in which the "Gross II" temporarily ended her career in a tree, she was given back to the Blue Army taking part in the manoeuvres, and on the 15th inst. she performed valuable scouting service. In fact, it is claimed that the "victory" of the Blue Army was largely due to the information obtained by the dirigible.

Italian Military Dirigible.

THE Italian military dirigible was given a long trial, lasting two and a half hours, on the 16th inst. Starting from Bracciano, the airship was steered for Palo, and kept along the seaboard towards Civita Vecchia. It was then turned back for the return journey. On the 17th the airship was taken out again for a short trial and made a run of about 50 kiloms., the average altitude being 860 metres.

CORRESPONDENCE.

* * The name and address of the writer (not necessarily for publication) MUST in all cases accompany letters intended for insertion, or containing queries.

FLIGHT IN THE PROVINCES.

To the Editor of FLIGHT.

SIR,—I have much pleasure, as secretary, in tending my best thanks to Mr. S. H. Hollands for the sympathy and best wishes he has for the Sheffield Aero Society. I have much pleasure also to inform him that there has been a hearty response to my calls for members, and as he will see elsewhere in this issue, all were most enthusiastic at our last meeting and there was a very encouraging attendance. I shall be very pleased to hear from him, and should he have any suggestions, I can assure him they will be given due consideration, as I trust his assistance may prove valuable in helping to place this Society in a respectable position. I hope he will receive some encouragement in his scheme for an aviation week at York, as I am familiar with the ground he suggests as a suitable place and can endorse all he says. I take the opportunity of touching on the subject of your leaderette of last issue, and although the Sheffield Aero Society is in too early a stage for this great question of affiliation to be discussed, I should like to say that I quite agree with what you say, except that I think instead of running

three separate bodies it would be far better for a recognised single body to represent all the branches of flying. I have no partiality for either one party or the other, but consider that "too many cooks spoil the broth"—a fact which has been proved time and time again.

Faithfully yours,
C. WIGHTMAN, Hon. Sec. (*pro tem.*),
36, Colver Road, Sheffield. Sheffield Aero Society.

ASSISTING MR. CODY.

To the Editor of FLIGHT.

SIR,—I shall be greatly obliged if, through your paper, I may ask the various parties (clubs or otherwise) who are making arrangements for assisting Mr. Cody on the day of his London-Manchester flight, to communicate with me with a view to arranging, if possible, means whereby a system of inter-communication can be adopted by wire to and from the various parties so engaged on the particular day. I think it very necessary that each party should be kept informed as to the progress being made, and also the direction in which the course of flight lies. (This is indeed an instance where "wireless" would score.) I think such a system would be to the mutual advantage and interest of all those concerned in the undertaking. Of course, a telegraph office would have to be decided upon, somewhere in the vicinity, in which the men of each party were stationed. I shall be pleased to receive any suggestions on the matter, and also give my views.

Faithfully yours,
C. WIGHTMAN, Hon. Sec.,
36, Colver Road, Sheffield. Sheffield Aero Society.
Other Correspondence, Patents, &c., owing to heavy pressure on our columns, have had to be held over.—ED.

BACK NUMBERS OF "FLIGHT."

SEVERAL back numbers are now becoming very scarce, and when exhausted no more complete sets will be procurable.

The publishers have pleasure in announcing that they have secured a few of these back issues of FLIGHT, and any of our new readers who may wish for sets of FLIGHT, No. 1 (January 2nd, 1909), to last week, including No. 31, with Bleriot machine drawings to scale, and Curtiss biplane Number (No. 27), can obtain same post free for 15s. 3d. (abroad 16s. 10d.) from the Publishers, 44, St. Martin's Lane, W.C. Bleriot Number separately, 2s.

Several numbers are now nearly out of print, except for the publishers' limited reserve stock for bound volumes at end of year. Those wishing, therefore, to ensure obtaining Volume I complete, with Index and Title Page, can book same now at the price of One Guinea, bound in cloth. Orders will be booked for these in rotation as received. As various numbers become scarce the price will be raised accordingly.

No. 3 is now 1s. 6d.; No. 4, 1s. 6d.; No. 12, 1s. 6d.; No. 15, 1s.; No. 16, 3s. 6d.; No. 31, 2s.

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